

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte STEPHEN R. SCHMIDT

Appeal 2005-2349
Application. 09/961,126
Technology Center 1700

Decided: September 12, 2006

Before TIMM, JEFFREY T. SMITH, and FRANKLIN, *Administrative Patent Judges*.

TIMM, *Administrative Patent Judge*. Dissenting opinion by JEFFREY T. SMITH, *Administrative Patent Judge*

DECISION ON APPEAL

This appeal involves claims 10, 11, 16, 17, and 35, which are all the claims pending in the application. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 134.

INTRODUCTION

The claims are directed to an apparatus including a corrugating device, a water supply device, a starch supply device, and a securing device. The apparatus is intended to be used to manufacture a corrugated product, i.e., corrugated board. Claim 10 is illustrative:

10. An apparatus for manufacturing a corrugated product comprising:

a corrugating device adapted to form a plurality of flutes on first and second sides of a first web of medium, each flute having a crest;

a water supply device applying water to only a plurality of crests on the first side of the first web;

a starch supply device applying starch to only the plurality of crests on the first side of the first web after the water supply device has applied water to only the plurality of crests; and

a securing device adapted to secure a second web of medium to the plurality of crests on the first side of the first web to form a single-faced corrugated board, the water and starch combining to form an adhesive joining the first and second webs of medium together.

The Examiner rejects the claims under 35 U.S.C. §§ 112, ¶ 1, 102(b), and 103(a) as set forth below. With regard to the rejections under 35 U.S.C. §§ 102(b) and 103(a), the Examiner relies upon the following prior art references as evidence of unpatentability:

Swift	US 1,199,508	Sept. 26, 1916
Wallick	US 5,292,391	Mar. 8, 1994
Wallick	US 5,332,458	Jul. 26, 1994
Miller	US 5,609,711	Mar. 11, 1997

Westphal

US 5,849,081

Dec. 15, 1998

The specific rejections maintained are:

1. Claims 10, 11, 16, 17, and 35 under 35 U.S.C. § 112, ¶ 1 as lacking written descriptive support;
2. Claims 10, 11, 16, and 17 under 35 U.S.C. § 102(b) as anticipated by Wallick '391 or Wallick '458;
3. Claim 35 under 35 U.S.C. § 103(a) as unpatentable over Wallick '391 or Wallick '458 in view of Westphal and/or Miller;
4. Claims 10, 11, 16, and 17 under 35 U.S.C. § 103(a) as unpatentable over Swift in view of Wallick '391 or Wallick '458; and
5. Claim 35 under 35 U.S.C. § 103(a) as unpatentable over Swift in view of Wallick '391 or Wallick '458 and further in view of Westphal and/or Miller.

We affirm substantially for the reasons advanced by the Examiner.

We add the following primarily for emphasis.

OPINION

Turning first to the rejection under 35 U.S.C. § 112, ¶ 1, we find no reversible error in the Examiner's determination that there is no support in the original written description for the claim recitation "the water and starch combining to form an adhesive joining the first and second webs of medium together." The Examiner rightly interprets "the water" in this clause to be referring to the water applied by the water supply device. There is no other

reference to water in the claim. Our review of the original written description indicates that, as determined by the Examiner, there is no indication that the water *from the water supply device* combines with the starch applied by the starch supply device to form adhesive. Rather, the written description discloses that the adhesive is formed from a starch slurry. This slurry contains water, but the water in the slurry is not the water applied to the crests by the water supply device.

Appellant argues that the issue of whether starch and water form an adhesive is immaterial to the patentability of the pending application. This is because, according to Appellant, (1) the use of starch as an adhesive in the art is well known; (2) the pending application does not affect the current method of starch formulation, application, and curing; and (3) the invention is designed to augment the starch bonding process and to replace some of the applied starch with water alone. Appellant then points to several sections of the written description and argues that these sections provide the required support.

The problem is that the sections of the written description reproduced by Appellant only support the concept of using the water within the starch slurry to form the adhesive. That is not the “water” referenced in the claim: The “water” of the claim must be interpreted to be the water issuing from the water supply device as there is no antecedent basis for any other water. The concept of using the water from the water supply device such that it

combines with the starch to form an adhesive is not present in the specification.

It appears that at the heart of the dispute here is a misunderstanding of the claim's scope. Appellant states in the arguments that "[t]his additional water is not used as an adhesive, but rather as a process improvement" (Br. 7) when referring to the water issuing from the water supply device. But, this statement supports the position of the Examiner that the water of the water supply device is not disclosed as combining with starch to form adhesive.

According to the dissent, "the determination of the properties of this composition (as an adhesive) would have been conveyed by the original disclosure to one of ordinary skill in the art." Apparently, our dissenting colleague believes that the formation of adhesive from the combination of the pre-applied water, water that the Specification describes as a wetting agent, and starch within the slurry is an inherent result of the process. The problem is that the Specification only indicates that the pre-applied water is a wetting agent. It is the water within the slurry that is described as combining to form the adhesive. Moreover, as discussed above, Appellant even states in the Brief that the pre-applied water "is not used as an adhesive."

Our dissenting colleague would require the Examiner to establish that the pre-application of water followed by a starch slurry does not function to join the two webs together or act as an adhesive. We do not agree that the

burden is the Examiner's to establish that adhesion does not occur. The Examiner pointed out that the claim reads on something not described in the Specification. That is enough to establish a prima facie case of lack of written description under the current facts. *See In re Wertheim*, 541 F.2d 257, 263-64, 191 USPQ 90, 97 (CCPA 1976) ("By pointing to the fact that claim 1 reads on embodiments outside the scope of the description, the PTO has satisfied its burden."). Nor has Appellant overcome the prima facie case. In fact, Appellant states in the Brief that "[t]his additional water is not used as an adhesive."

We find that the Examiner has established unpatentability under 35 U.S.C § 112, ¶ 1. Appellant has not convinced us of any reversible error in the Examiner's determination that there is lack of written descriptive support nor has Appellant provided sufficient evidence to overcome the prima facie case.

Turning to the anticipation of claims 10, 11, 16, and 17 by the Wallick references, we find that the Examiner has found a description of the apparatus of claim 10, the representative claim (Answer 5 and 6). As pointed out by Appellant, the Wallick references have the same basic disclosure. While we have reviewed both references and find that they support the position of the Examiner, we will herein refer to Wallick '391 to explain our decision.

There is no dispute that Wallick describes an apparatus including a corrugating device (rollers 38 and 40), a starch supply device (glue station

42), and a securing device (pressure rolls 36). There is further no dispute that there is a supply device (resin application station 44) that applies a resin solution to the corrugated web (fluted medium) before the application of glue by the glue station 42. In one embodiment, the resin application station includes a spray means 48 (Wallick '391, col. 5, ll. 19-22). In another embodiment, the resin application station includes a roll coater 82 that applies the resin solution only to the flute tips (Fig. 2b, col. 7, ll. 17-20). The Examiner finds that the roll coater 82 is capable of applying water to only a plurality of crests as claimed and, therefore, the roll coater 82 meets the structural requirements of the water supply device of claim 10.¹

Appellant argues that whether Wallick is “capable” of spraying water is not relevant, rather, what is relevant is what Wallick actually discloses and what Wallick discloses is a resin applicator that applies resin, not water, to the entire corrugated medium (Br. 9).

As a first matter, Appellant’s argument is flawed because it focuses on the sprayer described in Wallick. The rejection does not rely upon the sprayer to meet the limitations of the claim. It is the roll coater 82 that the Examiner finds meets the requirements of the water supply device of claim

¹ We cannot agree with our dissenting colleague that it is the spray means 48 that the Examiner finds is the claimed water supply device. The rejection cites to Figure 2b and Examiner states in the Response to Argument that “[t]he embodiment relied upon in the rejection is that of the application to only the crests of the corrugated web as shown in figure 2b” (Answer 7). Figure 2b illustrates the use of coating roller 82.

10. As found by the Examiner, the roll coater applies the resin only to the crests of the corrugated web as claimed.

As a second matter, Appellant is incorrect that the question of whether the supply device is “capable of” applying water is irrelevant to patentability. In fact, the Examiner's analysis is consistent with the law on anticipation. Claim 10 is directed to an apparatus. “[A]pparatus claims cover what a device *is*, not what a device *does*.” *Hewlett-Packard Co. v. Bausch & Lomb, Inc.*, 909 F.2d 1464, 1468, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990). Therefore, the patentability of an apparatus claim depends on the claimed structure, not on the use or purpose of that structure, or the function or result of that structure. *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997); *In re Gardiner*, 171 F.2d 313, 315-16, 80 USPQ 99, 101 (CCPA 1948). If the prior art structure possesses all the claimed characteristics including the capability of performing the claimed function, then there is a prima facie case of unpatentability. *In re Ludtke*, 441 F.2d 660, 663-64, 169 USPQ 563, 566-67 (CCPA 1971).

The Examiner has provided a reasonable basis to conclude that the roll coater 82 of Wallick is capable of applying water to only a plurality of crests of the web (Answer 5-6 and 13-14). For instance, the Examiner notes that the devices of the Wallick references have the same structure and function as Appellant's supply device (Answer 13). Compare, for instance, the roll coater shown in Figure 2b of Wallick '391 with Appellant's water supply device shown in, for instance, in Figure 1 at 114 and in Figure 2 at

200. Both the coater of Wallick and the coater of Appellant consist of an application roll that picks up a liquid from a tray and a second roll that removes excess liquid from the first roll. As further found by the Examiner, “[t]he Specification does not define the wetting supply device as a particular structure any different from those in the references” (Answer 13). Given the similarity in structure between the Wallick roll coater and the roll coater of Appellant, it is reasonable to conclude that the roll coater of Wallick is capable of applying water to the web crests in the same manner it applies the resin solution. The Examiner’s reasonable conclusion shifts the burden to Appellant to show that, in fact, the roll coater of Wallick is not capable of applying water as claimed. *See Schreiber*, 128 F.3d at 1478-79, 44 USPQ2d 1432. Appellant provides no convincing evidence that there is no such capability.

Our dissenting colleague states that in order for the roll coater of Wallick to anticipate the water supply device of the present invention there must be some evidence establishing that the consistency and flow characteristics of the “suitable isocyanate resin” are the same as or comparable to that of water. We do not agree that such evidence is required here. Given the similarities between the roll coater 82 of Wallick and the roll coater described by Appellant in the specification, there is enough evidence to reasonably conclude that the roll coater of Wallick has the capability of supplying water. We also note that Appellant has not even

alleged that the device of Wallick does not have the capability of supplying water.

We find that the Examiner has established a prima facie case of anticipation by Wallick '391 and '458 with respect to the subject matter of claims 10, 11, 16, and 17 that has not been sufficiently rebutted by Appellant.

The Examiner further rejected claim 35 under 35 U.S.C. § 103(a) as unpatentable over Wallick '391 or '458 in view of Westphal and/or Miller. Claim 35 further requires that the water supply device comprise a sprayer. The Examiner notes that Wallick describes the use of a sprayer, but acknowledges that it is unclear whether the sprayer of Wallick coats only the crests of the web. Therefore the Examiner turns to Westphal and Miller to show sprayers able to apply coatings only to the crests or flutes of a corrugated surface. The Examiner concludes that it would have been obvious to use a sprayer to apply the resin solution of Wallick only to the crests as such sprayers were well known and would be equivalent to the roll coater of Wallick.

Appellant argues that Westphal is not related to sprayers used in applying water to corrugated board and, therefore, does not add anything to the obviousness equation (Br. 10 and 11). In reference to Miller, Appellant argues that a spray device will apply an even coating to the full surface in front of the spray head and, furthermore, that Appellant agrees that the spray

device alone is not patentable, it is the combination of the claim that is patentable (Br. 11).

However, we agree with the Examiner's response to these arguments (Answer 15). We also note that the sprayer of Miller is configured to apply material only to the crests as shown in Figure 9 and discussed in column 7, lines 50-58. Furthermore, Westphal is directed specifically to the application of coating material to the crests of a corrugated material, something that is desired in the process of Wallick. Therefore, one of ordinary skill in the art would have recognized that the sprayer of Westphal, which is able to apply a liquid coating only on the crests, would be useful to accomplish this same function disclosed in Wallick.

Appellant further argues that what is novel and unobvious is "the provision of water in a corrugated paperboard manufacturing process onto the tips of the flutes of the corrugated board prior to the application of a starch slurry onto those same flutes." (Br. 11). But, as we explained above, it is the structure of the apparatus that must be differentiated from the structure of the prior art apparatus. The question is not whether the prior art teaches applying water, it is whether there is a suggestion to use an apparatus having the structure required by the claim.

Appellant further argues that the references fail to identify the problems inherent in the prior art much less identify the solution identified by the application (Br. 12). But, as long as there is some reason, suggestion, or motivation in the prior art for making the combination, the problems

addressed need not be the same as those addressed by Appellant. *See In re Beattie*, 974 F.2d 1309, 1311, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992) ("As long as some motivation or suggestion to combine the references is provided by the prior art taken as a whole, the law does not require that the references be combined for the reasons contemplated by the inventor." (*citing In re Kronig*, 539 F.2d 1300, 1304, 190 USPQ 425, 427-28 (C.C.P.A. 1976))). The Examiner makes a finding of a reason, suggestion, or motivation to combine the teachings and Appellant does not directly dispute this finding. Furthermore, the reason to combine the teachings flows from the disclosures of the references. The Wallick references disclose an embodiment in which the resin solution is only applied to the tips of the flutes, i.e., the crests of the web (Wallick '391, col. 5, ll. 30-32) and further discloses using a sprayer to apply the resin, albeit it is unclear whether Wallick intends the sprayer to apply the coating only to the tips. The Westphal and Miller references provide evidence that sprayers were known that could apply liquid material to only the crests or tips of flutes of a corrugated material. It follows that it would have been obvious to one of ordinary skill in the art to use the known prior art sprayers to accomplish what Wallick desires, i.e., to coat only the crests or tips.

We conclude that the Examiner has established prima facie case of obviousness with respect to claim 35 that has not been sufficiently rebutted by Appellant.

The Examiner further rejected claims 10, 11, 16, and 17 under 35 U.S.C. § 103(a) as unpatentable over Swift in view of Wallick '391 or '458. Appellant argues that Swift is directed to applying sodium silicate, not water, to the corrugated board (Br. 13). The Examiner finds that the supply device of Swift is capable of applying water as claimed. Just as in the case of Wallick, this determination is reasonable in light of the evidence. The structure of the apparatus appears to be the same or substantially the same as that required by claim 10.

Appellant further argues that the sodium silicate is being applied to the side of the web opposite the side of the adhesive (Br. 13). We do not agree. Figure 1 shows a spray device 6 that applies material to one side of the web prior to a set of rollers 29, 30 that apply adhesive to the same side of the web.

Appellant also argues that Swift does not limit the application of the sodium silicate to the tips of the flutes. The Examiner acknowledges this. The Examiner applies the Wallick references with regard to this limitation. Therefore this argument does not point to a reversible error on the part of the Examiner.

Appellant also repeats the argument that the references do not address the problem solved by Appellant. As we stated above, the references need not solve the same problem as solved by Appellant. There simply has to be a reason, suggestion, or motivation of some kind to make the combination called for by the claim. Here, there is a reason to use an application device

that will apply the sodium silicate to the tips of the flutes in order to obtain the advantages expressly articulated in Wallick.

We conclude that the Examiner has established a prima facie case of obviousness with respect to claims 10, 11, 16, and 17 that has not been sufficiently rebutted by Appellant.

With regard to the rejection of claim 35 under 35 U.S.C. § 103(a) as unpatentable over Swift in view of Wallick '391 or '458 and further in view of Westphal and/or Miller, Appellant reiterates the same arguments addressed above. Suffice it to say that we conclude, for the reasons expressed above, that the Examiner has established a prima facie case of obviousness with respect to claim 35 over these references. Appellant has not sufficiently rebutted the prima facie case of obviousness.

CONCLUSION

To summarize, the decision of the Examiner to reject claims 10, 11, 16, 17, and 35 under §§ 112, ¶ 1 and 35 U.S.C. § 103(a) is affirmed as is the decision of the Examiner to reject claims 10, 11, 16, and 17 under 35 U.S.C. § 102(b).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

JEFFREY T. SMITH, *Administrative Patent Judge*, concurring-in-part and dissenting-in-part:

I concur with the panel's decision to affirm the Examiner's § 103 rejection of claim 35 for the reasons expressed in the majority opinion. However, I respectfully dissent from the majority's decision to affirm the 35 U.S.C. § 112, first paragraph rejection and the rejection of claims 10, 11, 16, and 17 under 35 U.S.C. §§ 102(b) and 103(a).

Turning to the rejection under 35 U.S.C. § 112, first paragraph, I share the Appellant's position that the subject matter of the appealed claims complies with the written description requirement of the first paragraph of 35 U.S.C. § 112. With regard to written description support, all that is required is that Appellant's Specification reasonably conveys to one of ordinary skill in the art as of the filing date of the application that Appellant was in possession of the presently claimed invention; how the Specification accomplishes this is not material. *See In re Kaslow*, 707 F.2d 1366, 1375, 217 USPQ 1089, 1096 (Fed. Cir. 1983); *In re Edwards*, 586 F.2d 1349, 1351-52, 196 USPQ 465, 467 (CCPA 1978).

The Examiner urges the Specification does not provide descriptive support for the claim recitation "the water and starch combine to form an adhesive joining the first and second webs of medium together." (Answer 4).

The Examiner's position is not persuasive. As correctly noted by Appellant, the Specification at page 10 describes the application of a wetting

agent such as water to the crests on the first side of the web followed by the application of a starch slurry to the crests wherein the wetting agent has previously been applied.² The disclosure on page 10 of the Specification further describes the application of a second web which is secured to the plurality of crests wherein the wetting agent and starch slurry have previously been applied. The Appellant's description in the claim that the water and starch combine to form an adhesive that joins the web medium together does not deviate from the disclosure in the Specification. The Examiner has not established that the pre-application of water followed by a slurry solution does not function to secure the subsequently added second web to the crests of the first web. In other words, the Examiner has not established that the application of water to the crest followed by a slurry solution does not function to join the two webs together or act as an adhesive. While it is recognized that the Specification does not describe all possible properties achieved by composition wherein water is applied as a wetting agent prior to the addition of a starch slurry, the determination of the properties of this composition (as an adhesive) would have been conveyed by the original disclosure to one of ordinary skill in the art. Consequently, I would reverse the Examiner's rejection under 35 U.S.C. § 112, first paragraph.

² The Specification, page 1, indicates that the starch slurry is prepared by using mainly powdered starch and water. Thus, the starch slurry is a water soluble composition.

Now turning to the prior art rejections, the Examiner's rejected claims 10, 11, 16, and 17 under 35 U.S.C. § 102(b) as anticipated by Wallick '391 or Wallick '458.³ The Examiner asserts that Wallick discloses an apparatus capable of manufacturing a corrugated product with a corrugating device capable of forming a plurality of flutes on a web medium. The Examiner asserts that Wallick also discloses "a water supply device capable of applying water to only the crests (spray 48 with the embodiment of the roller coater in Figure 2b applying only to the crests.)" (Answer 5). The Examiner further asserts that Wallick discloses a starch supply device capable of applying starch only to the crest (glue station 42). The Examiner further states "as to the amended limitations of a 'water' supply device and 'starch' supply device, the spray 48 in the Wallick references is fully capable of supplying water and the glue station 42 is also fully capable of applying starch." (Answer 6).

In my opinion, the present record lacks sufficient evidence to establish anticipation under § 102. Anticipation under § 102 requires that the identical invention that is claimed was previously known to others and is thus not new. *Scripps Clinic and Research Foundation v. Genentec Inc.*, 927 F.2d 1565, 1576, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991); *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 780, 227 USPQ 773, 777-78 (Fed. Cir. 1985). It is apparent from the Examiner's statement appearing on page 6 of the Answer that the Examiner is utilizing the spray

³ In discussing this rejection, I will limit my discussion to Wallick '391.

element 48 of Wallick to meet the requirement for a water supply device as specified in appealed claim 10. This reliance is contrary to the teaching in the Wallick reference appearing at column 6 where it states "[t]hese nozzles apply resin uniformly across the entire exposed surface area of the fluted medium." (Wallick '391, col. 6, ll. 44-47). The Examiner has not identified a teaching in the Wallick reference which discloses that the spray device applies resin solely to the fluted area which is required by the apparatus of the present claims.

To the extent that the Examiner is relying on the alternative means described in Wallick for applying the resin (depicted in Figure 2b), the Examiner has not established that this alternative means is capable of applying solely a composition consisting of water. In column 5, Wallick discloses the resin application station is designed to apply a "solution of suitable strength enhancing resin" which is sprayed or otherwise applied to all or a portion of the exposed surface of the fluted traveling medium. The Examiner has failed to make a factual determination as to the consistency of the resin employed in the resin application station versus that of water. That is, the Examiner has not directed us to evidence that establishes the resin composition has the same consistency and flow characteristics of water. It is further noted that Wallick in column 5 discloses that it is desirable to apply higher concentrations of resin along the throughs and flutes. Wallick further discloses in column 5, beginning on line 30, that in an alternative embodiment just the tips of the flutes are coated with the suitable isocyanate

resin. The present record is deficient as to the properties of this "suitable isocyanate resin." In order for the alternate means disclosed by Wallick to anticipate the water supply device of the present invention there must be some evidence which establishes that the consistency and flow characteristics of the "suitable isocyanate resin" are the same as or comparable to that of water. The Examiner has not made such a finding on the present record, and the majority has not addressed this deficiency. Based upon these disclosures appearing in column 5, it appears that the resin supply device depicted in Figure 2b is designed to provide a coating of high concentration resin to the tips of the traveling medium.⁴ There is no indication that such a device suitable for applying a higher concentration of resin is also suitable for applying water to the fluted tips. While it may be possible for a person of ordinary skill in the art to modify the resin supply device depicted in Figure 2b to apply water to the fluted tips, such is not the standard under 35 U.S.C. § 102(b).⁵

⁴ The present record does not include findings as to the structural materials used to form the roll coater. Thus, the present record does not have sufficient information to establish structural similarity. The identification of a component base solely on the appearance in the figures is insufficient to describe the materials from which the component is constructed.

⁵ In my opinion, prior to disposition of the present application, the Examiner should determine whether the appealed subject matter is patentable over the Wallick references under 35 U.S.C. § 103.

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The Examiner has also rejected claims 10, 11, 16, and 17 under 35 U.S.C. § 103(a) as obvious over the combined teachings of Swift and the Wallick references. In my opinion, this rejection is also deficient because the Examiner relies on the Wallick references for describing a spray device capable of applying water slowly to the fluted portion of the corrugated product. That stated above, the Wallick references have not been established by the Examiner to provide disclosure which indicates that the spray mechanism is suitable for application of water solely to the fluted areas. Therefore, I would reverse this rejection.

In summary, I agree with the affirmance by the majority of the rejection of claim 35. However, I disagree with the majority's affirmance of the rejection of claims 10, 11, 16, and 17 under 35 U.S.C. §§ 102 and 103.

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